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SERIAL NUMBER	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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00/02/1995 11/21/94 BONIN

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EXAMINER

LARKIN, D.

82M1/1106

ART UNIT

PAPER NUMBER

9

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2217

DATE MAILED:

11/06/95

This is a communication from the examiner in charge of your application.  
COMMISSIONER OF PATENTS AND TRADEMARKS

☐ This application has been examined ☒ Responsive to communication filed on 24 July 1995 ☒ This action is made final.

A shortened statutory period for response to this action is set to expire 3 month(s), — days from the date of this letter.  
Failure to respond within the period for response will cause the application to become abandoned. 35 U.S.C. 133

Part I THE FOLLOWING ATTACHMENT(S) ARE PART OF THIS ACTION:

- |                                                                                         |                                                                                   |
|-----------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| 1. <input checked="" type="checkbox"/> Notice of References Cited by Examiner, PTO-892. | 2. <input type="checkbox"/> Notice of Draftsman's Patent Drawing Review, PTO-948. |
| 3. <input checked="" type="checkbox"/> Notice of Art Cited by Applicant, PTO-1449.      | 4. <input type="checkbox"/> Notice of Informal Patent Application, PTO-152.       |
| 5. <input type="checkbox"/> Information on How to Effect Drawing Changes, PTO-1474.     | 6. <input type="checkbox"/> _____                                                 |

Part II SUMMARY OF ACTION

1. ☒ Claims 1-41 are pending in the application.

Of the above, claims \_\_\_\_\_ are withdrawn from consideration.

2. ☐ Claims \_\_\_\_\_ have been cancelled.

3. ☒ Claims 1-3 and 5-40 are allowed.

4. ☒ Claims 4 and 41 are rejected.

5. ☐ Claims \_\_\_\_\_ are objected to.

6. ☐ Claims \_\_\_\_\_ are subject to restriction or election requirement.

7. ☐ This application has been filed with informal drawings under 37 C.F.R. 1.85 which are acceptable for examination purposes.

8. ☐ Formal drawings are required in response to this Office action.

9. ☐ The corrected or substitute drawings have been received on \_\_\_\_\_. Under 37 C.F.R. 1.84 these drawings are ☐ acceptable; ☐ not acceptable (see explanation or Notice of Draftsman's Patent Drawing Review, PTO-948).

10. ☒ The proposed additional or substitute sheet(s) of drawings, filed on 24 July 1995, has (have) been ☒ approved by the examiner; ☐ disapproved by the examiner (see explanation).

11. ☒ The proposed drawing correction, filed 24 July 1995, has been ☒ approved; ☐ disapproved (see explanation).

12. ☐ Acknowledgement is made of the claim for priority under 35 U.S.C. 119. The certified copy has ☐ been received ☐ not been received  
☐ been filed in parent application, serial no. \_\_\_\_\_; filed on \_\_\_\_\_.

13. ☐ Since this application appears to be in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11; 453 O.G. 213.

14. ☐ Other

EXAMINER'S ACTION

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1. The disclosure is objected to because of the following informalities:

The specification fails to provide an brief description of drawing Figures 2A-2C.

Page 36, lines 5-12: A reference to Figure 2A is needed somewhere within this description.

Page 36, lines 13-22: A reference to Figure 2B is needed somewhere within this description.

Page 36, lines 23-26 through page 37, lines 1-2: A reference to Figure 2C is needed somewhere within this description. Appropriate correction is required.

2. Claim 4 is rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Re claim 4: The phrase "said sensor" lacks antecedent basis.

3. Claim 41 is rejected under 35 U.S.C. § 103 as being unpatentable over Bonin et al. in view of Ball, Ueda et al., Beavers et al., and Browne et al. Bonin et al. disclose a capacitive accelerometer having two force transducers each with a separate drive plate. A central plate which displaces accordingly in response to acceleration changes due to its spring/plate is arranged in between the two drive plates. Means are provided for assessing the position of the central plate in response to the central plate receiving a force. Bonin fails to explicitly disclose means for applying a force remote from the central plate/third substrate. Ueda et

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al. disclose a capacitive weight sensor with means for applying pressure to the sensor from a point remote from the diaphragm/central plate. It would have been obvious to have used means to apply a force to the plate from a remote location because the skilled artisan would look to Ueda et al. for a capacitance sensor with means to impart motion to a diaphragm from a remote location. Ueda et al. fail to show the means for imparting a force to the central plate. It would have been obvious for one of ordinary skill in the art to have provided Bonin et al. with a hole in the first substrate for the force imparting means because Ball discloses a capacitive pressure transducer having a central hole in the first substrate (19), an insulated spacer (17) and means (25) for applying a force to the diaphragm plate (14). Neither Bonin, Ueda et al., nor Ball disclose the specific force imparting means of the instant application (i.e. a non-conductive pedestal passing through the hole in the first substrate). Beavers et al. disclose a capacitive momentum transducer which utilizes a metal plate connected to a diaphragm for translating the momentum of a particle as particles strike the plate. The plate of Beavers et al. however, is metal and not non-conductive. Browne et al. disclose a capacitive pressure sensor which uses a non-conductive (insulating-type) material as a pedestal (28) which is in contact with a diaphragm. It would have been obvious for one of ordinary skill in the art to have replaced the tube of Ball or the unknown force of Ueda et al. with a pedestal which physically/mechanically produces a force because the skilled artisan would recognize the functional

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equivalence of the plate/pedestal of Beavers et al. and Browne et al. with the blowing tube of Ball or the unknown force of Ueda et al.

**NOTE:** Claims 1-40 are allowable over the prior art of record.

4. Claim 4 would be allowable if rewritten to overcome the rejection under 35 U.S.C. 112 and to include all of the limitations of the base claim and any intervening claims.

5. Applicant's amendment necessitated the new grounds of rejection. Accordingly, **THIS ACTION IS MADE FINAL.** See M.P.E.P. § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 C.F.R. § 1.136(a).

A SHORTENED STATUTORY PERIOD FOR RESPONSE TO THIS FINAL ACTION IS SET TO EXPIRE THREE MONTHS FROM THE DATE OF THIS ACTION. IN THE EVENT A FIRST RESPONSE IS FILED WITHIN TWO MONTHS OF THE MAILING DATE OF THIS FINAL ACTION AND THE ADVISORY ACTION IS NOT MAILED UNTIL AFTER THE END OF THE THREE-MONTH SHORTENED STATUTORY PERIOD, THEN THE SHORTENED STATUTORY PERIOD WILL EXPIRE ON THE DATE THE ADVISORY ACTION IS MAILED, AND ANY EXTENSION FEE PURSUANT TO 37 C.F.R. § 1.136(a) WILL BE CALCULATED FROM THE MAILING DATE OF THE ADVISORY ACTION. IN NO EVENT WILL THE STATUTORY PERIOD FOR RESPONSE EXPIRE LATER THAN SIX MONTHS FROM THE DATE OF THIS FINAL ACTION.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel Larkin whose telephone number is (703) 308-6724. The examiner can normally be reached on Monday-Friday from 7:00 AM - 4:00 PM.

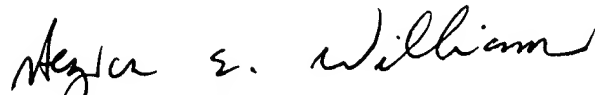
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hezron E. Williams, can be reached on (703) 305-4705. The FAX telephone number for this Group (Group 2200, unit 2212) is (703) 308-7382.

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Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 305-4900.

  
Daniel Larkin

October 24, 1995

  
**HEZRON E. WILLIAMS**  
**SUPERVISORY PATENT EXAMINER**  
**GROUP 2200**